Software User's Manual

LEMA Course Scheduling System

Team 12

Name	Primary Role	Secondary Role
David Wiggins	Project Manager	Developer
Aakash Shah	Prototyper	Developer
Kushalpreet Kaur	Developer	Developer
Thammanoon Kawinfruangfukul	Tester	Developer
Eunyoung Hwang	Architect	Developer
Louis Demaria	IIV&V	Developer
Mark Villanueva	QFP	Developer
Sangik Park	Developer	Developer

04/27/12

Version History

Date	Author	Version	Changes made	Rationale
04/04/12	DW	1.1	Initial submission	Draft TRR
04/09/12	DW	1.2	Added section 1	Additional content for Draft TRR
04/27/12	DW	1.3	Removed mention of Progress Tracking. Updated screen shots.	Final Transition

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1. Introduction

1.1 System Overview

The LEMA Course Scheduling System is the combination of both the LEMA website and FET system. The website acts as a public interface on the web for students to register for courses, counselors to review those selections, teachers to see their final schedules, and schedulers to input information needed to manage the creation and organization of course schedules for the coming semester. The FET is a desktop system used to organize the courses into a final schedule that follows given constraints in an automated fashion. Instructions in usage for both are included in this user manual.

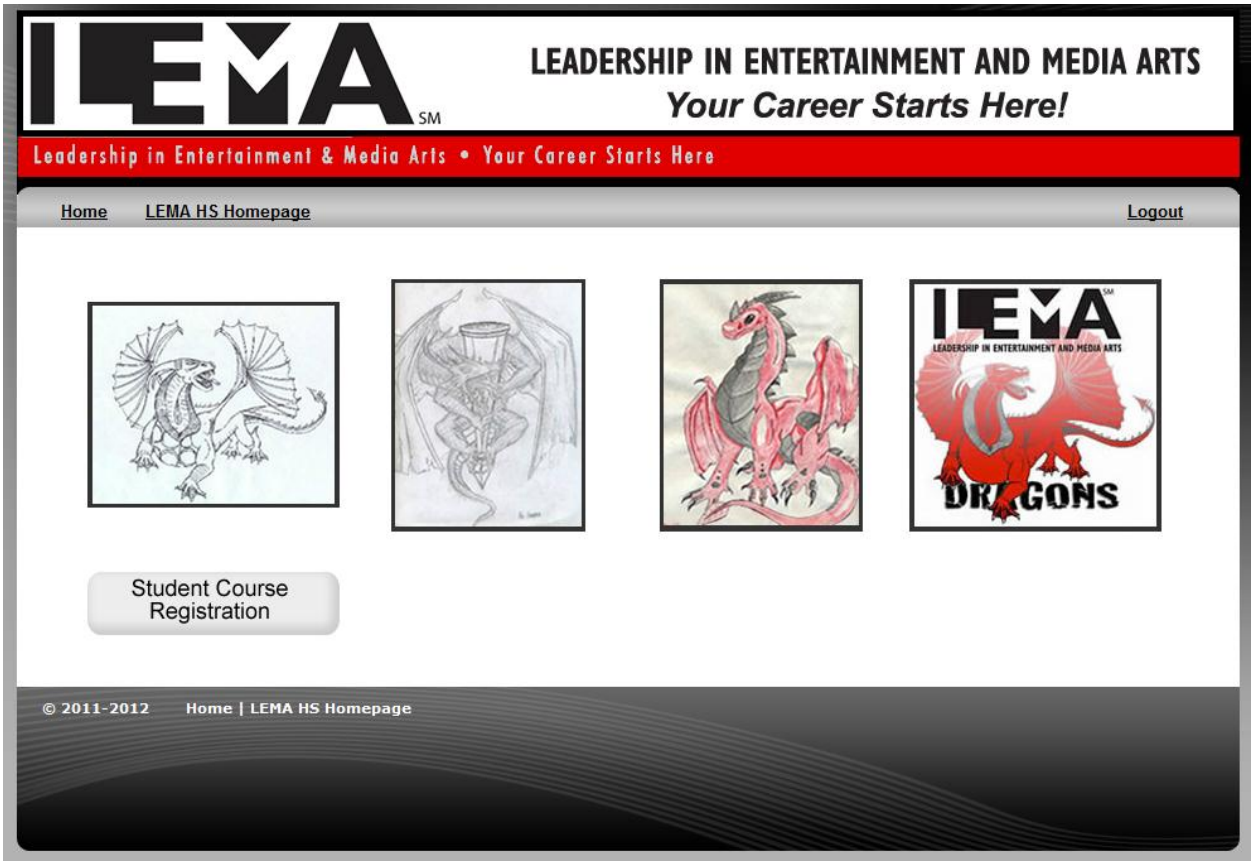
This User's Manual is meant to serve users who will be logging into the system under any role; Student, Teacher, Scheduler, or Counselor.

2. Operational Procedures

2.1 Student Role

2.1.1 Entering the site

When someone with the role of "Student" logs into the system they'll be presented with the landing page tailored to only show the content that students are allowed to access. This means they'll only have access to the "Student Course Registration" menu. Clicking the picture, button, or top/bottom links that say "Student Course Registration" will take them to that section of the website.

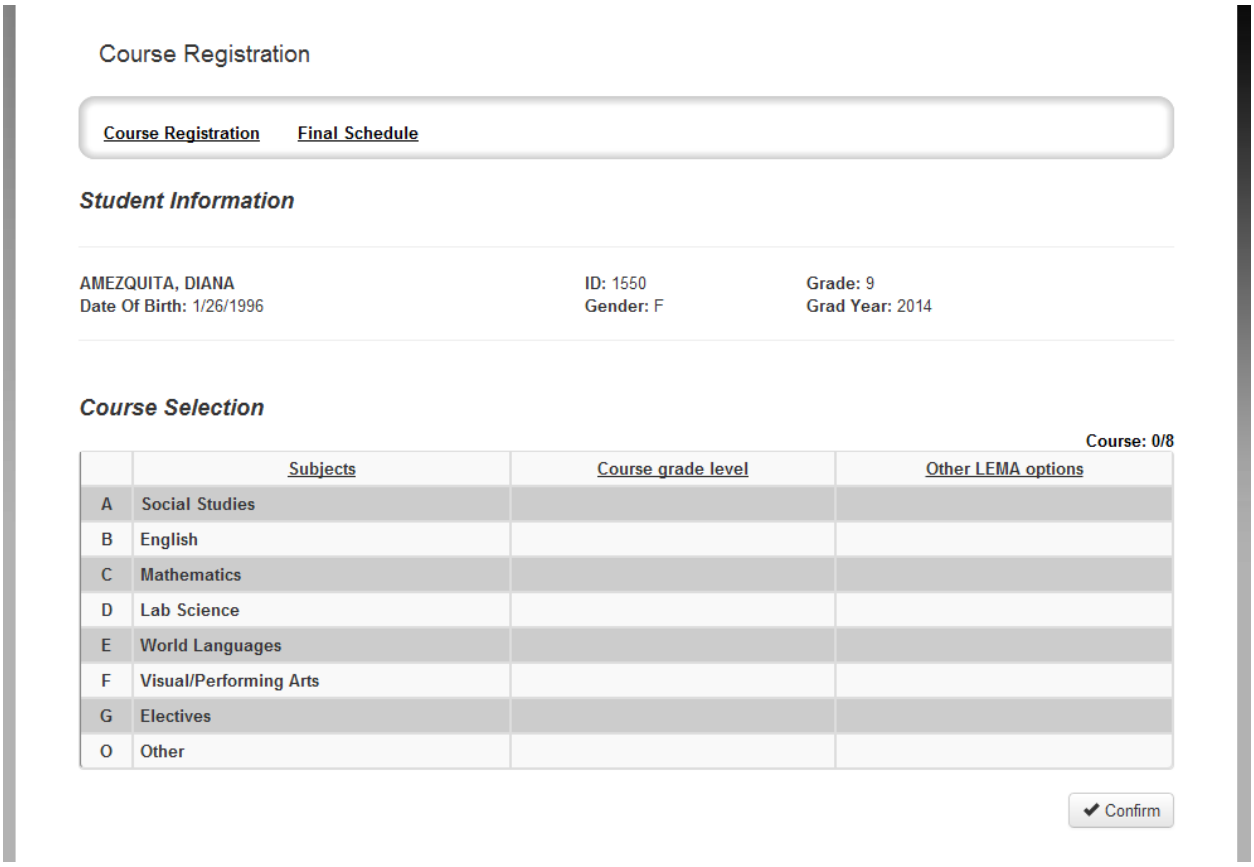


2.1.2 The Student Course Registration Module

After clicking the "Student Course Registration" button the user is routed to the Course Registration page. Throughout this module the student is presented with menu links to three pages; Course Registration, and Final Schedule.

2.1.2.1 Course Registration

This page displays student information regarding the student's identity and how far along in school they are. Following this information the student is presented with a table of subjects and the courses being offered in each subject. Students can click the check boxes and hit the "Confirm" button in order to register for courses. Hitting the "Cancel" button clears all checked boxes.



2.1.2.2 Final Schedule

This page displays a table with the student's final schedule for the current semester. This page is entirely for display of the schedule. Once a student has entered their course preferences for the semester on the Course Registration page and a counselor has approved of the requested courses they will be displayed into this table for the student.

Course Registration Final Schedule

Student Information

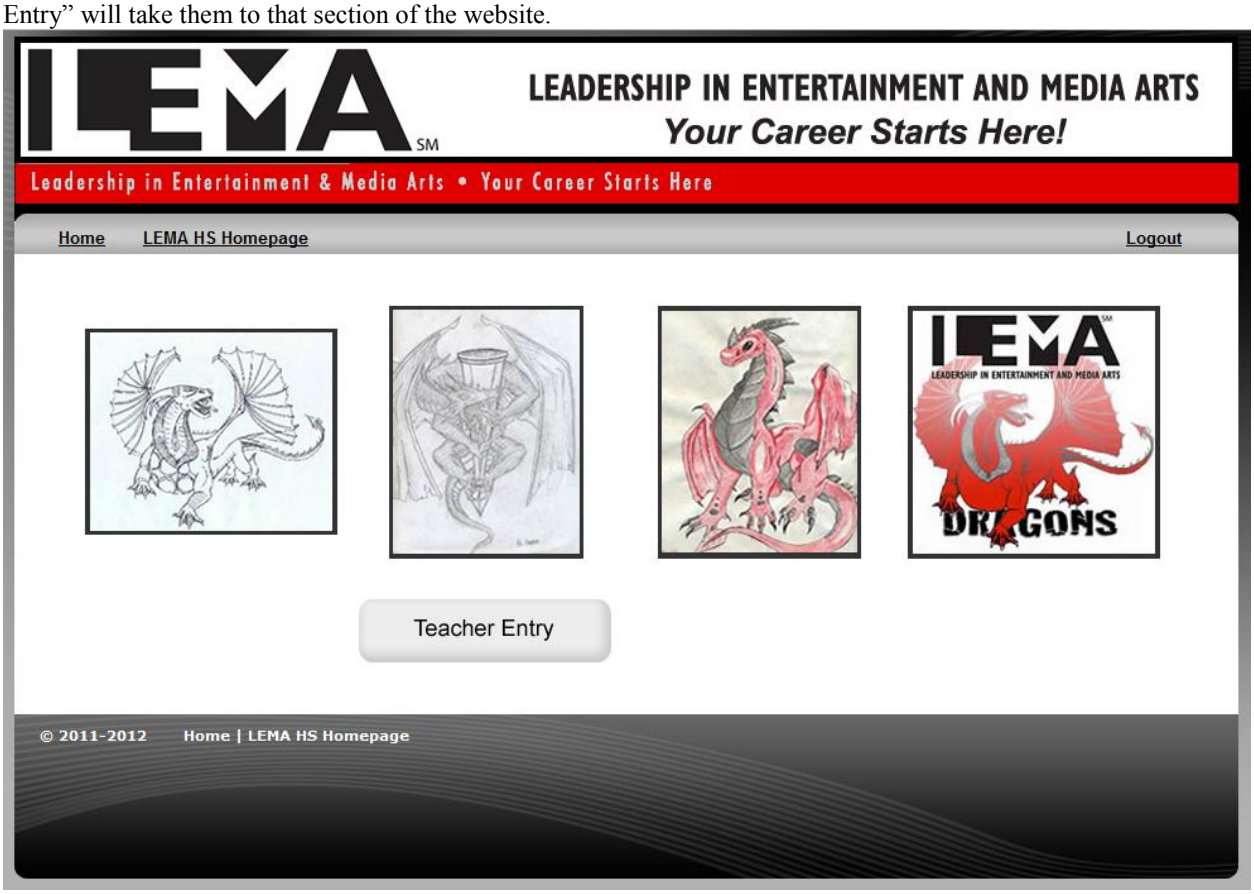
AMEZQUITA, DIANA	**ID:** 1550	**Grade:** 9	**Grad Year:** 2014
Date Of Birth: 1/26/1996	**Gender:** F	**Year:** 2012	**Semester:** Fall

Weekly Schedule

PERIOD 1	ENGLISH 10A MONETTE, T Rm B05
PERIOD 2	FILM,INTEG ART MONETTE, T Rm B05
PERIOD 3	WHG: MOD WLD A PETRI, S Rm B14
PERIOD 4	SPANISH 1A ARELLANO, A RmB11A
PERIOD 5	FILMMAKING 1A GOLDIN, B RmB16A
PERIOD 6	ALGEBRA 1A |R KAING, N Rm B09
PERIOD 7	ADV PE 2A GARCIA, R Rm PE
PERIOD 8	BIOLOGY A HUEYOPA, E RmB17B
ADVISORY	ADVISORY |10 TALWANI, R RmB16B

2.2 Teacher Role

When someone with the role of "Teacher" logs into the system they'll be presented with the landing page tailored to only show the content that the user's role allows. Teachers will be able to see the "Teacher Entry" links and button but users that are some combination of roles (ie a teacher that is also a counselor) will have access to additional modules on the site through links provided. Clicking the picture, button, or top/bottom links that say "Teacher Entry" will take them to that section of the website.



2.2.1 Teacher Entry

Teachers only have one page to see. This is their Final Teaching Schedule.

2.2.1.1 Final Teaching Schedule

This page displays the teacher's name, ID, their Teaching Level, the current year, and the current semester. Below they will see their weekly schedule in a table that is divided by periods followed by "ADVISORY" and "Club" columns. Each cell contains a brief description of class or activity planned for that time. The title of the activity is a link that will take the user to a page that shows a table of the students currently enrolled in the class. From that page, clicking the "Back to Teacher Entry" button in the top right will take the user back to the Final Teaching Schedule page.

Final Teaching Schedule

Teacher Information

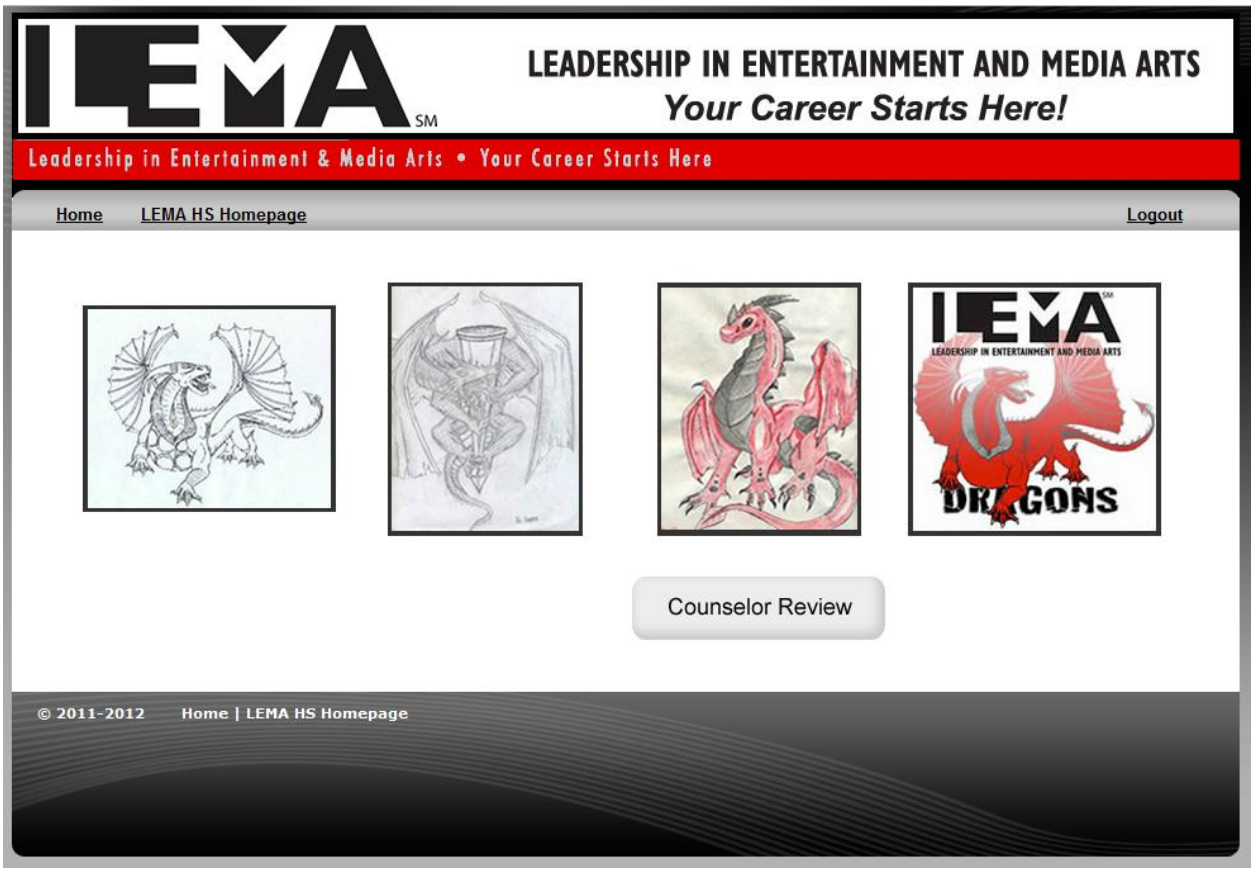
Name : ALI, P
ID : 12
Teaching Level : 0 9 12
Year : 2012
Semester : Spring

Weekly Schedule

PERIOD 1	ENGLISH 9B Bubble: 101 Room: B07
PERIOD 2	WRIT SEMINAR B Bubble: 106 Room: B07
PERIOD 3	CONF/PREP PER Bubble: 903 Room: 0
PERIOD 4	CONF/PREP PER Bubble: 904 Room: 0
PERIOD 5	ENGLISH 9B Bubble: 105 Room: B07
PERIOD 6	WRIT SEMINAR B Bubble: 106 Room: B07
PERIOD 7	ENGLISH 9B Bubble: 107 Room: B07
PERIOD 8	WRIT SEMINAR B Bubble: 106 Room: B07
ADVISORY	ADVISORY Bubble: 801 Room: B07
Club	BOARD GAMES Bubble: 812 Room: B07

2.3 Counselor Role

When someone with the role of "Counselor" logs into the system they'll be presented with the landing page tailored to only show the content that the user's role allows. Counselors will be able to see the "Counselor Review" links and button but users that are some combination of roles (ie a Counselor that is also an Admin) will have access to additional modules on the site through links provided. Clicking the picture, button, or top/bottom links that say "Counselor Review" will take them to that section of the website.



2.3.1 Counselor Review

Counselors are presented with a summary of students that have been assigned to them by a scheduler. The table is searchable, sortable, and can be adjusted to show 10, 25, 50, or 100 entries at once. There is also a drop down that will allow the user to show students only from a particular grade level. Generic identity information such as Name, Gender, Grade, etc… are also presented.

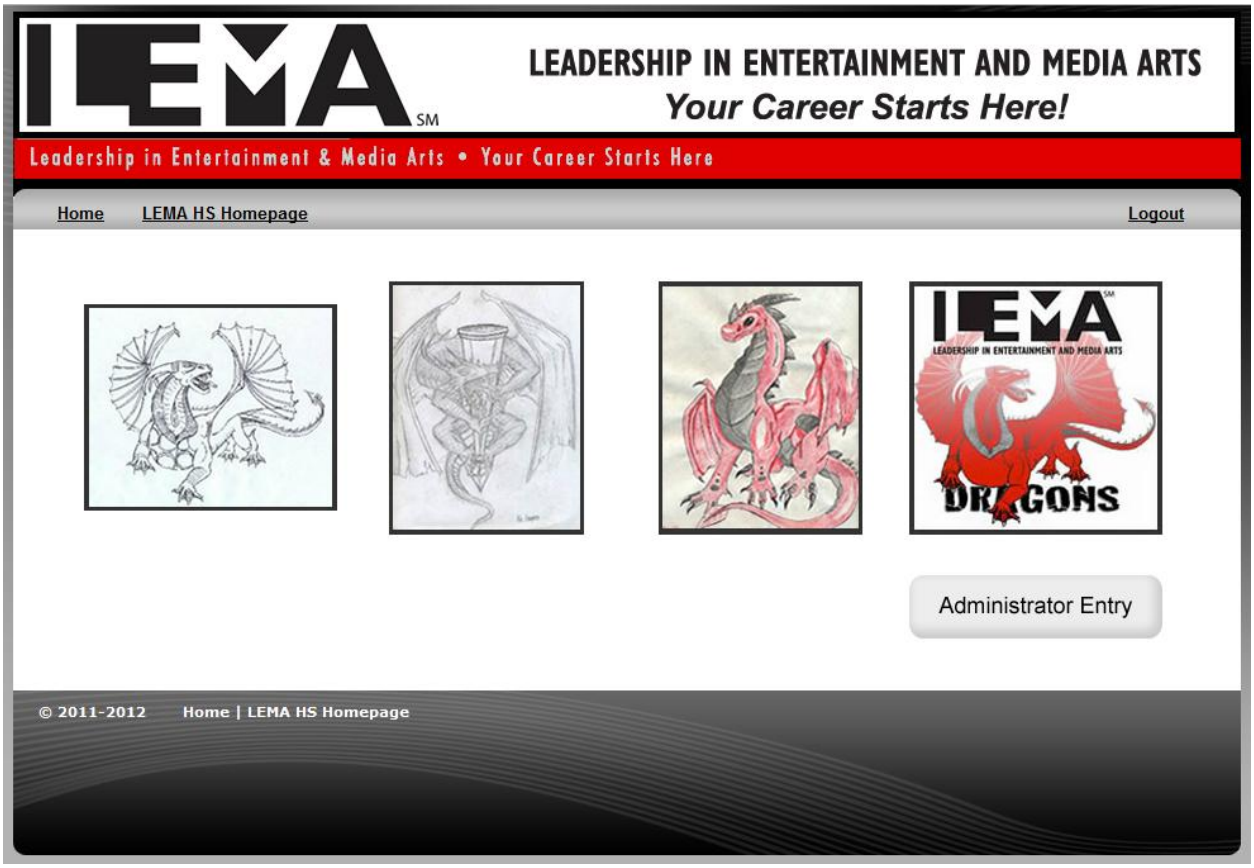
2.3.1.1 Approving a student's course selection

By clicking on the link in the "Register Status" column for a particular student the user is routed to a page where they can approve or disapprove the students requests for classes. By clicking the "Back to Summary" button in the top right the user is routed back to the Counselor Review page.

2.3.1.2 Seeing a particular students Current Schedule

By clicking on the link in the “Schedule” column for a particular student the user is routed to a page where they can see the student’s current schedule for the semester. By clicking the “Back to Summary” button in the top right the user is routed back to the Counselor Review page.

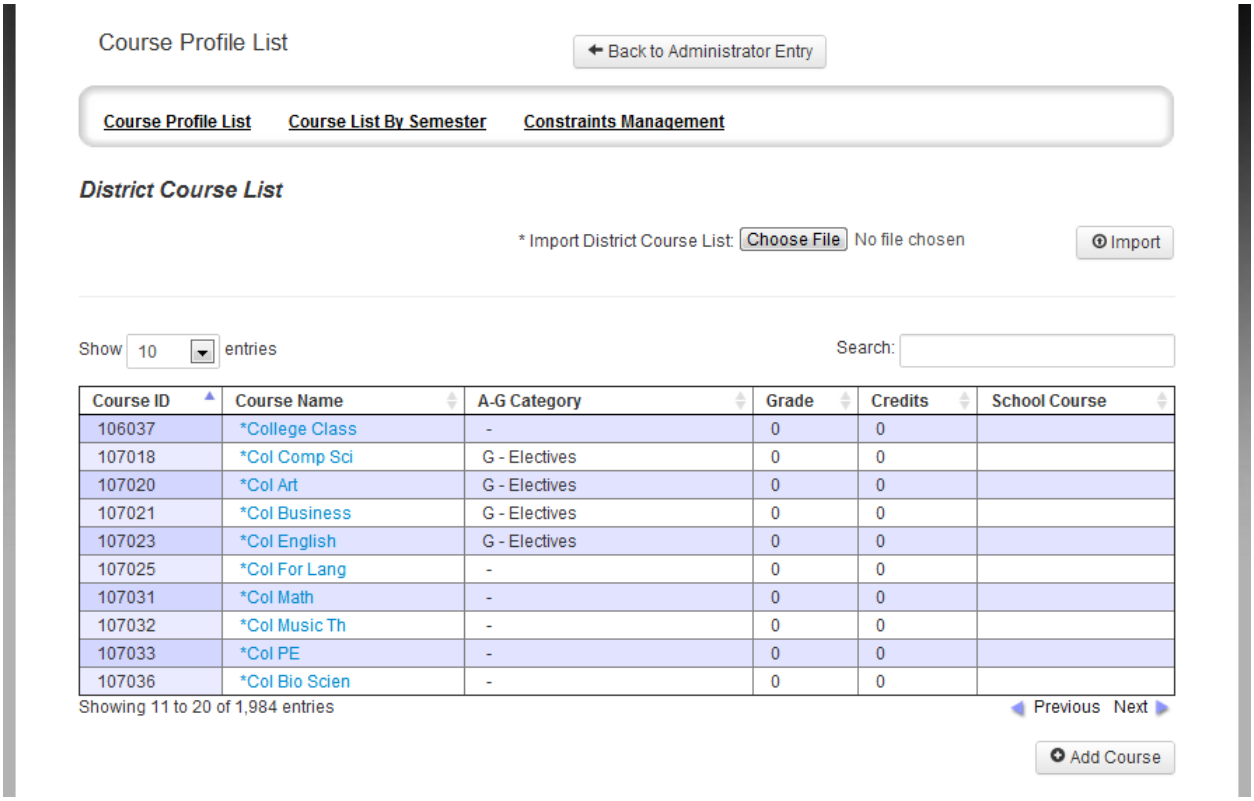
2.4 Administrator/Scheduler Role



2.4.1 Course Management

2.4.1.1 Course Profile List

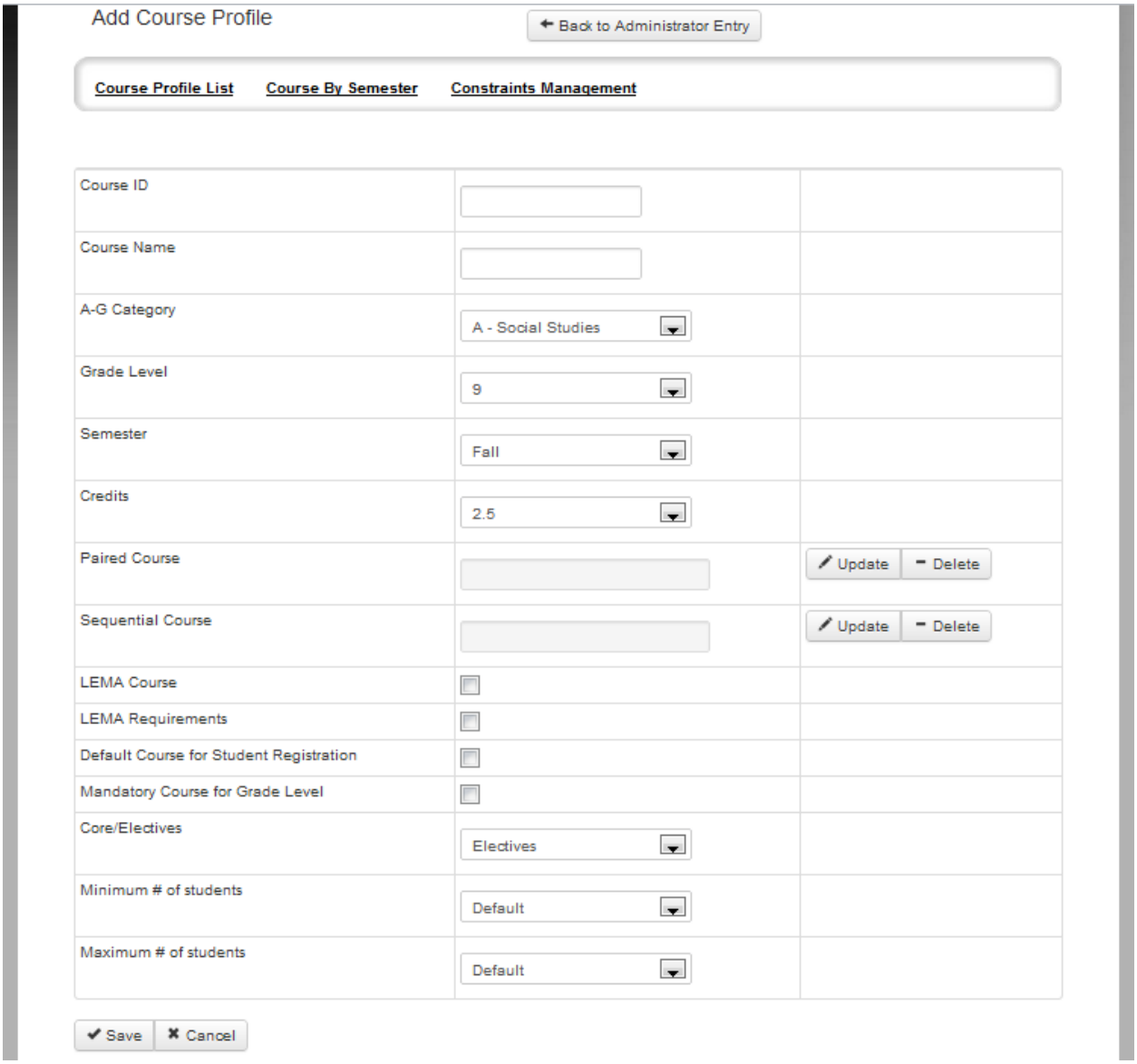
By clicking on the link of “Course Management” menu or “Course Profile List” menu, district course list appears on the table. Initially, a scheduler needs to import District Course List CSV file into the database. To do that, a scheduler can click “Browse” button, choose CSV file and click “Import” button. Before importing CSV file, a scheduler needs to remove the header. This page provides the choice for how many entities to list up and the search functionality.


Course Profile List
Back to Administrator Entry
Course Profile List
Course List By Semester
Constraints Management
District Course List
* Import District Course List: Choose File No file chosen
Import
Show 10 entries
Search:
Course ID
Course Name
A-G Category
Grade
Credits
School Course
106037 *College Class - 0 0
107018 *Col Comp Sci G - Electives 0 0
107020 *Col Art G - Electives 0 0
107021 *Col Business G - Electives 0 0
107023 *Col English G - Electives 0 0
107025 *Col For Lang - 0 0
107031 *Col Math - 0 0
107032 *Col Music Th - 0 0
107033 *Col PE - 0 0
107036 *Col Bio Scien - 0 0
Showing 11 to 20 of 1,984 entries
Previous Next
Add Course

2.4.1.2 View/Add Course Profile

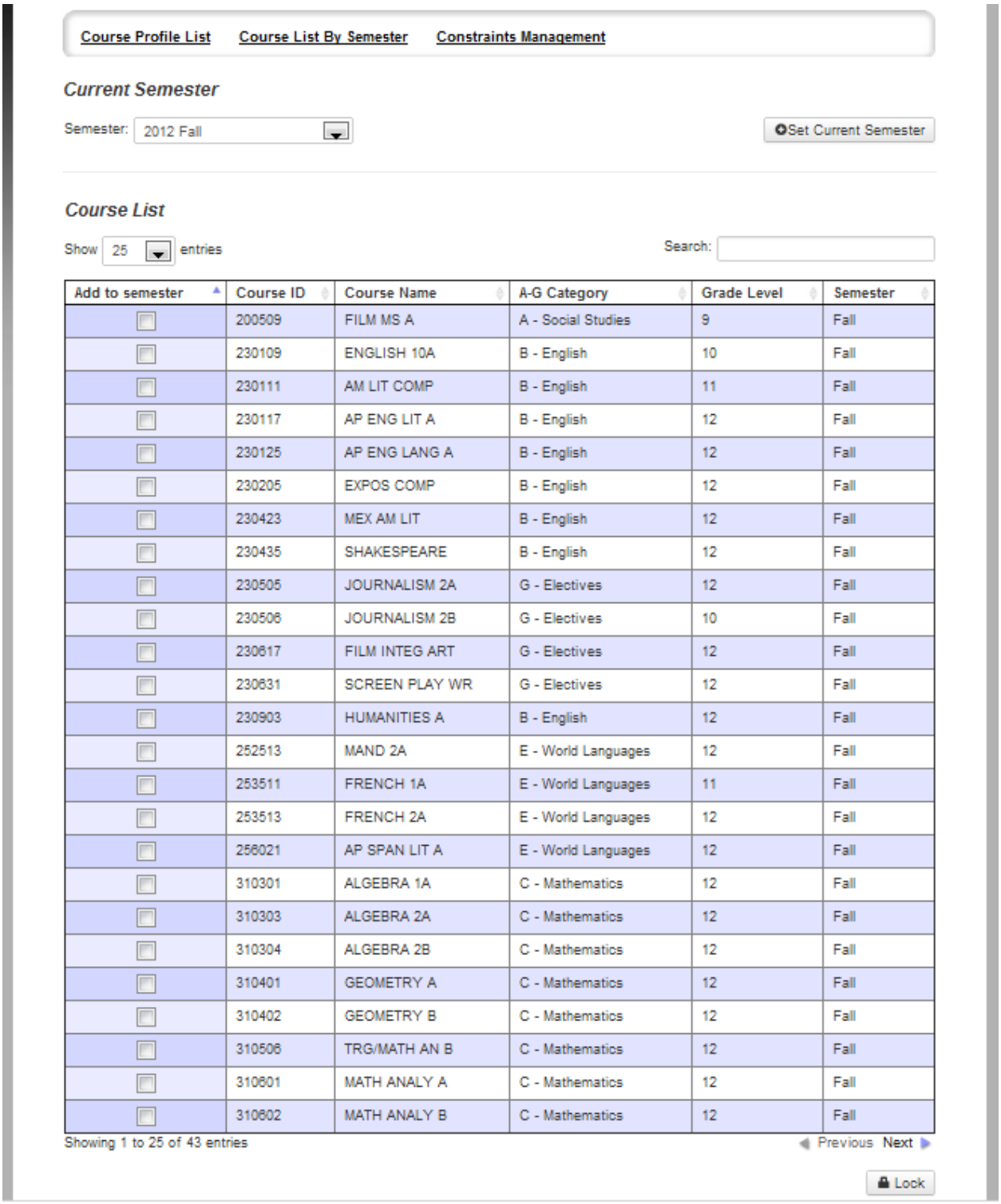
When a scheduler wants to add more courses, click "Add Course" button. For example, Honored English course is not here on the district course list, so a scheduler can add course with the same course id to English course with "H" at the end of course id. When clicking the course name, view/edit course profile page appears and a scheduler are allowed to change the contents except the course id.

- Paired Course means that the courses need to be registered together. For example, English 9A and Journalism 1A are paired class, so students need to register both classes and they schedules for sequential period. English 9A is scheduled for period 1 and then Journalism 1A is in period 2.
- Sequential Course means that the courses for two semesters in row. For example, English 9A and English 9B are sequential courses
- If LEMA course is checked, it means LEMA provides the course to students
- LEMA requirements mean that students need to pass the course to graduate LEMA



2.4.1.3 Course List by Semester

This page is to set current semester as a default semester and to select the courses to open for the current semester. First, select the semester and click “set Current Semester” button. Then courses for that semester selected appear on the list. A scheduler can check the courses for that semester and click “Lock” button. Lock means selected courses are allowed for students to register for the semester. The status can be saved right after un-checking or checking the courses.



Course Profile List | Course List By Semester | Constraints Management

Current Semester

Semester: 2012 Fall | Set Current Semester

Course List

Show 25 entries | Search:

Add to semester	Course ID	Course Name	A-G Category	Grade Level	Semester
☐	200509	FILM MS A	A - Social Studies	9	Fall
☐	230109	ENGLISH 10A	B - English	10	Fall
☐	230111	AM LIT COMP	B - English	11	Fall
☐	230117	AP ENG LIT A	B - English	12	Fall
☐	230125	AP ENG LANG A	B - English	12	Fall
☐	230205	EXPOS COMP	B - English	12	Fall
☐	230423	MEX AM LIT	B - English	12	Fall
☐	230435	SHAKESPEARE	B - English	12	Fall
☐	230505	JOURNALISM 2A	G - Electives	12	Fall
☐	230506	JOURNALISM 2B	G - Electives	10	Fall
☐	230617	FILM INTEG ART	G - Electives	12	Fall
☐	230631	SCREEN PLAY WR	G - Electives	12	Fall
☐	230903	HUMANITIES A	B - English	12	Fall
☐	252513	MAND 2A	E - World Languages	12	Fall
☐	253511	FRENCH 1A	E - World Languages	11	Fall
☐	253513	FRENCH 2A	E - World Languages	12	Fall
☐	256021	AP SPAN LIT A	E - World Languages	12	Fall
☐	310301	ALGEBRA 1A	C - Mathematics	12	Fall
☐	310303	ALGEBRA 2A	C - Mathematics	12	Fall
☐	310304	ALGEBRA 2B	C - Mathematics	12	Fall
☐	310401	GEOMETRY A	C - Mathematics	12	Fall
☐	310402	GEOMETRY B	C - Mathematics	12	Fall
☐	310506	TRG/MATH AN B	C - Mathematics	12	Fall
☐	310601	MATH ANALY A	C - Mathematics	12	Fall
☐	310602	MATH ANALY B	C - Mathematics	12	Fall

Showing 1 to 25 of 43 entries | Previous Next

Lock

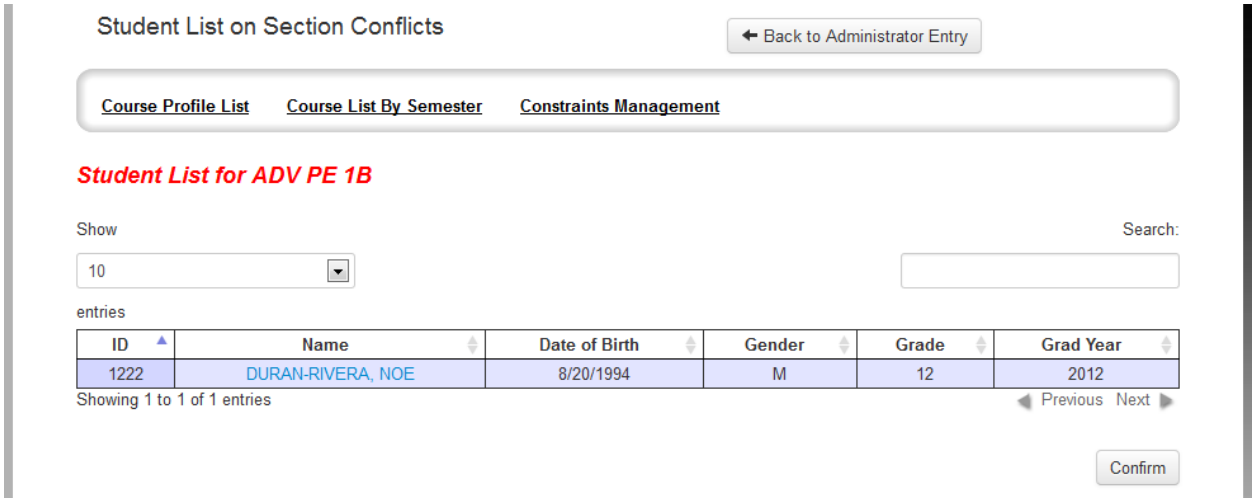
2.4.1.4 Course List by Semester

After student course registration has been confirmed by counselor, the same link for the Course List by Semester menu shows the number of students registered for the course and the minimum and maximum number of students

designated as LAUSD norm. Also at the end of each row, it shows the suggested the numbers of sections and if the number of students does not meet the norms, it shows the conflicts as well.

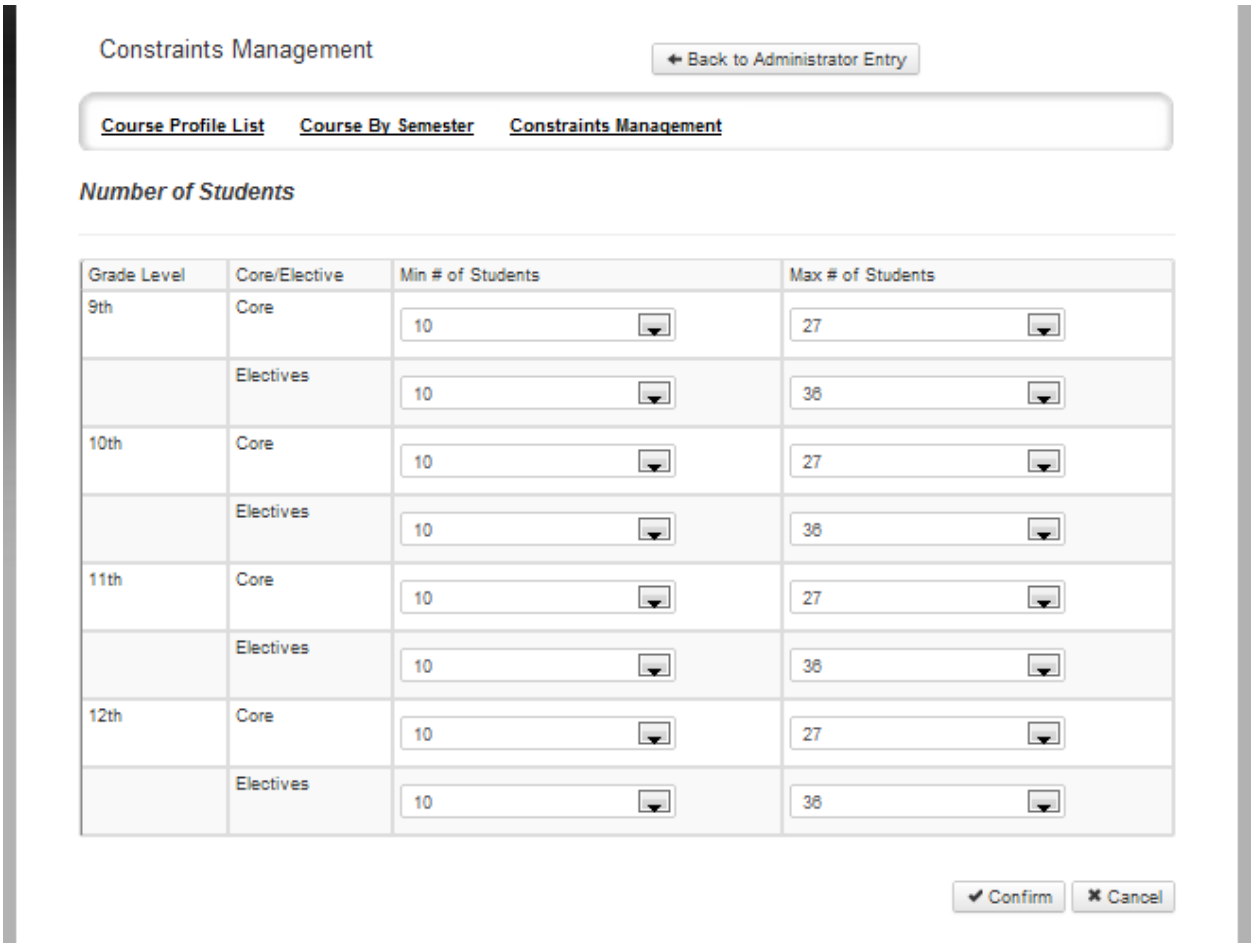
2.4.1.5 Student List on Section Conflicts

By clicking the number of registered students on the Course List by Semester page, a scheduler is routed to student list on section conflicts page. It provides the link for each student's registration page for a scheduler to allow changing student's course registration in order to reduce the conflicts.



2.4.1.6 Constraints Management

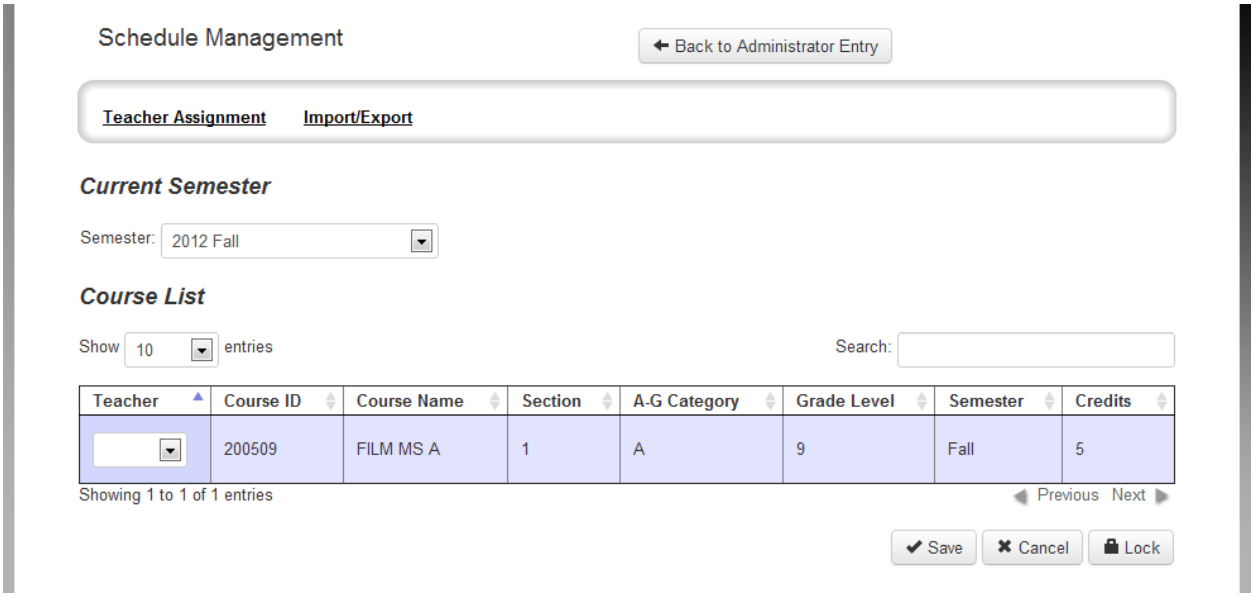
Core courses are the courses are belong to the A, B, C, and D Requirement Categories. Electives are the rest of courses. A scheduler set the number of students LAUSD Norms in this page.



2.4.2 Schedule Management

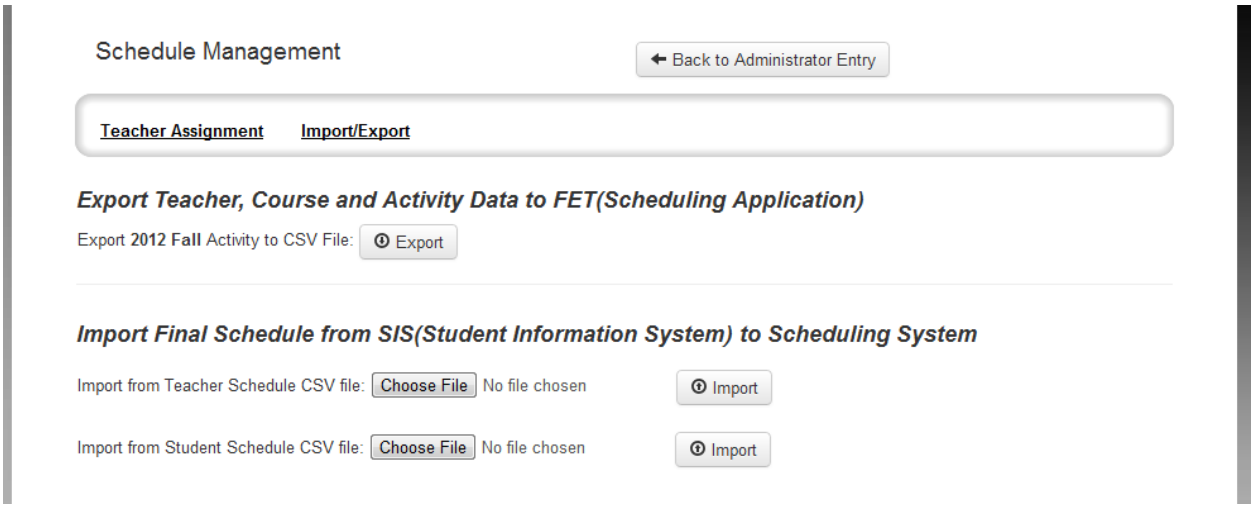
2.4.2.1 Teacher Assignment

The user sees a table showing all the current courses for a selected semester. The user can select which semester to view by using the "Semester" drop down under "Current Semester". The page will be refreshed when switching semesters. Standard search, sort, and paging functionalities are available on the table. For each course entry in the table the user can toggle which teacher is assigned to the course using the drop downs under the Teacher column. At the bottom of the page three buttons are present; Save, Cancel, and Lock. "Save" writes the teacher assignments to the database. "Cancel" takes the user back to the Administrator Entry page. "Lock" locks the course list. Clicking the Back to Administrator Entry button takes the user back to the Admin Entry page.



2.4.2.2 Import/Export

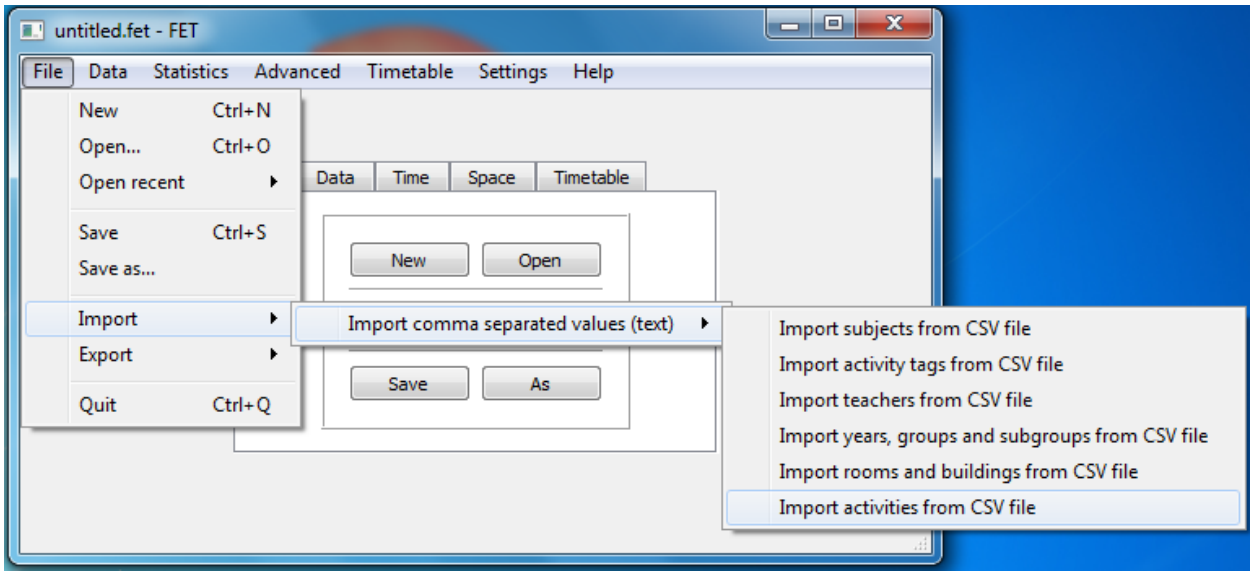
The User is provided with buttons to "Export Activity to CSV File", "Import from Teacher Schedule CSV file", and Import from Student Schedule CSV file". The Import buttons work with the file you select from your desktop by clicking and "Choose File" buttons and then navigating to the CSV you wish to upload. Clicking the Back to Administrator Entry button takes the user back to the Admin Entry page.



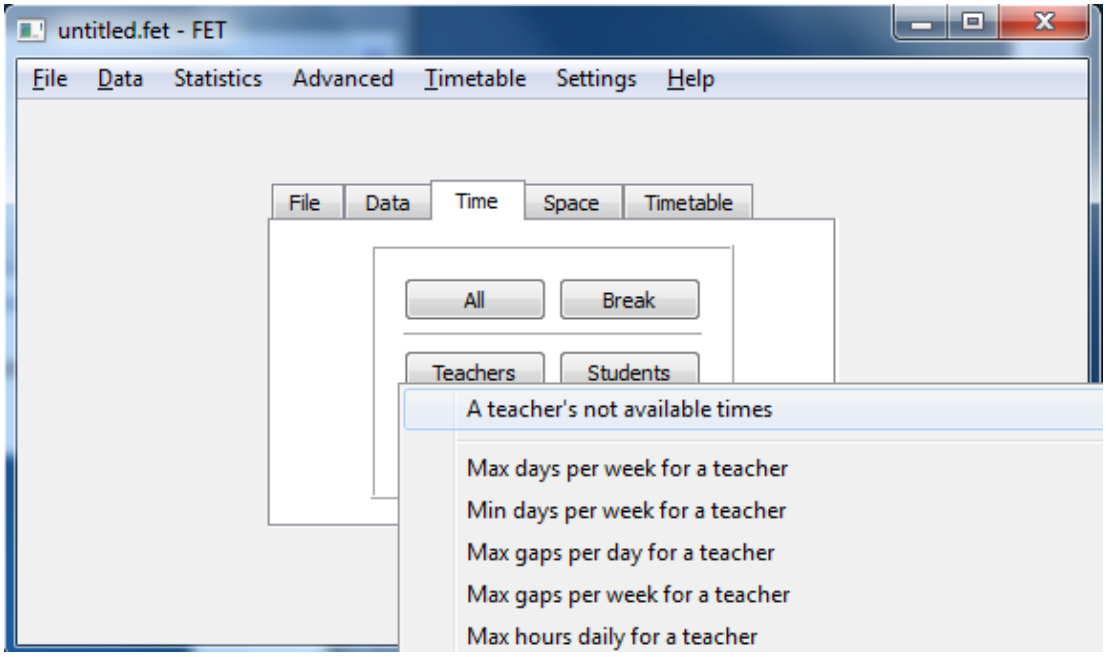
2.4.2.2.1 Export CSV File to FET

When clicking "Export Activity to CSV File" and It will automatically save exported CSV file name "activity.csv" into your download folder. This file needs to be input to the FET (scheduling application).

Open FET application and click File>Import>import comma separated values(text) > import activities from CSV file>select activity.csv file

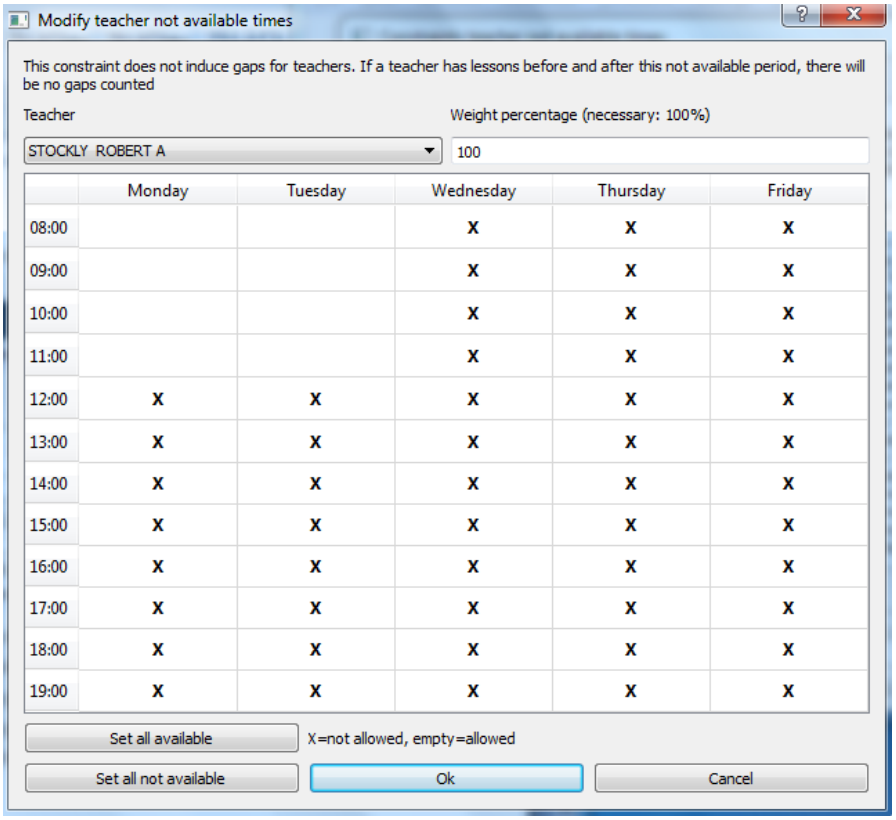


Click Time tab in the middle and click teacher button and click "A teacher's not available times"

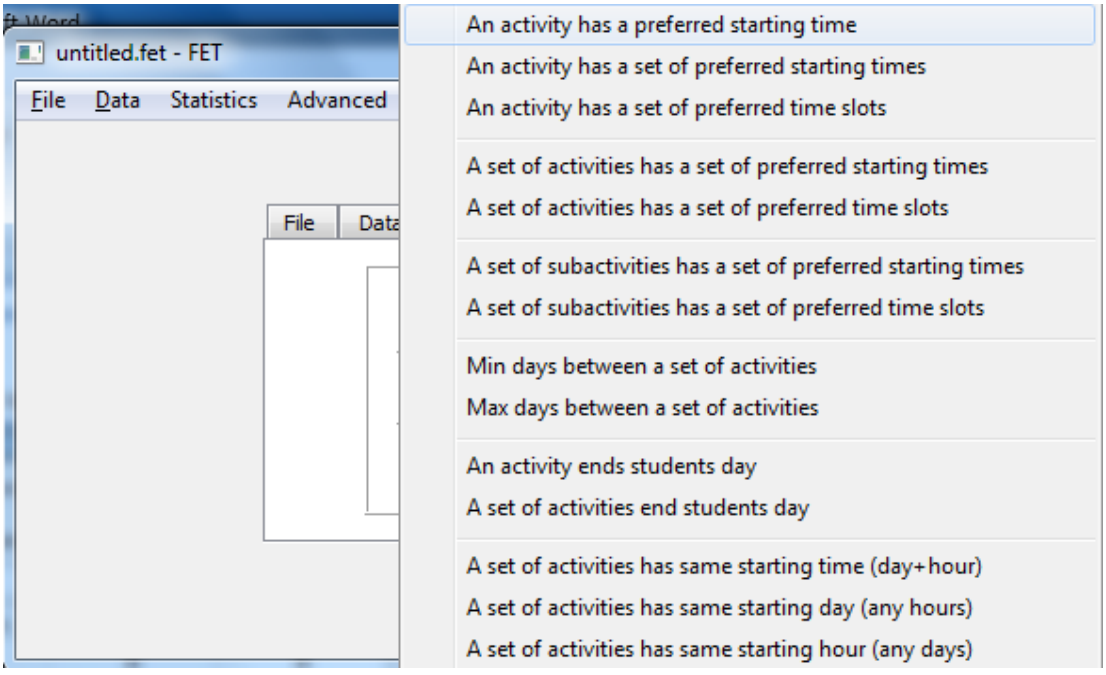

untitled.fet - FET
File Data Statistics Advanced Timetable Settings Help
File Data Time Space Timetable
All Break
Teachers Students
A teacher's not available times
Max days per week for a teacher
Min days per week for a teacher
Max gaps per day for a teacher
Max gaps per week for a teacher
Max hours daily for a teacher

Click "Modify" button then in this page, click "set all not available" button. Deselect 8, 9, 10, 11 am in Monday and Tuesday. This is for our 8 Period scheduling. Click ok to save. It needs to be done for all teachers, so select different

teacher on the Teacher combo box then do the same thing until to the end of the teacher list on the combo box.

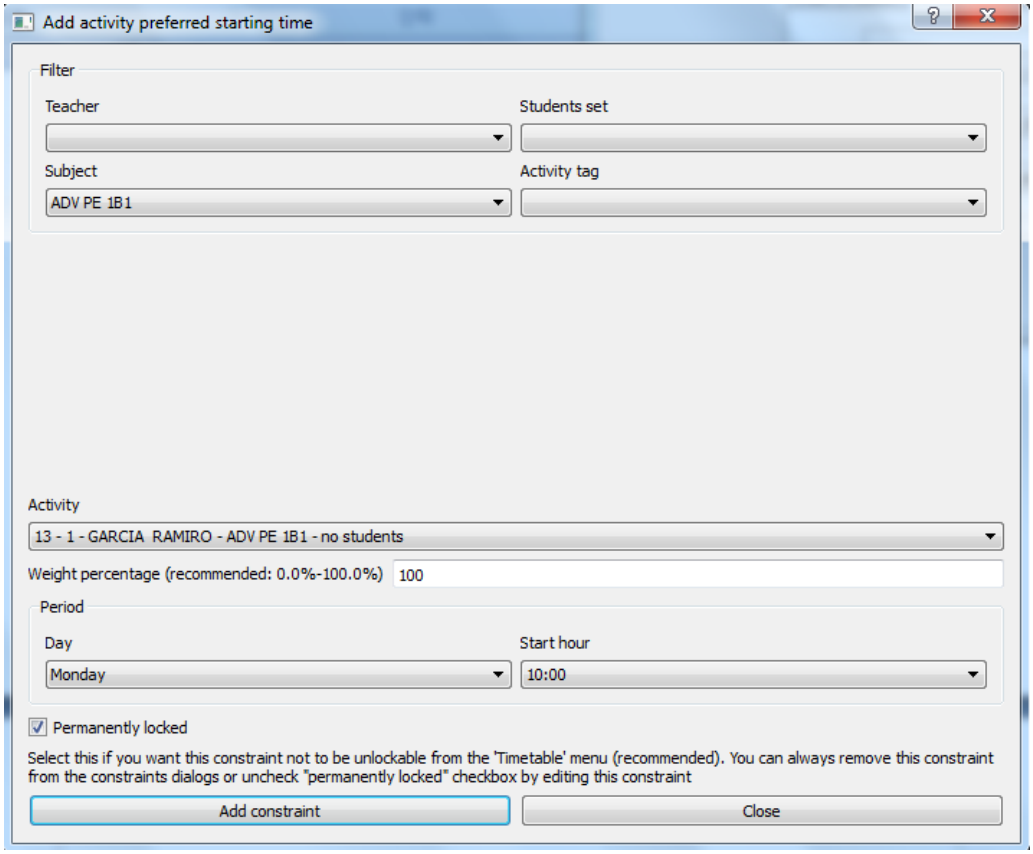

Modify teacher not available times
This constraint does not induce gaps for teachers. If a teacher has lessons before and after this not available period, there will be no gaps counted
Teacher
Weight percentage (necessary: 100%)
STOCKLY ROBERT A
100
Monday Tuesday Wednesday Thursday Friday
08:00 X X X
09:00 X X X
10:00 X X X
11:00 X X X
12:00 X X X X X
13:00 X X X X X
14:00 X X X X X
15:00 X X X X X
16:00 X X X X X
17:00 X X X X X
18:00 X X X X X
19:00 X X X X X
Set all available
X=not allowed, empty=allowed
Set all not available
Ok
Cancel

On the main page, click “Activity” button, choose “An activity has a preferred starting time”.

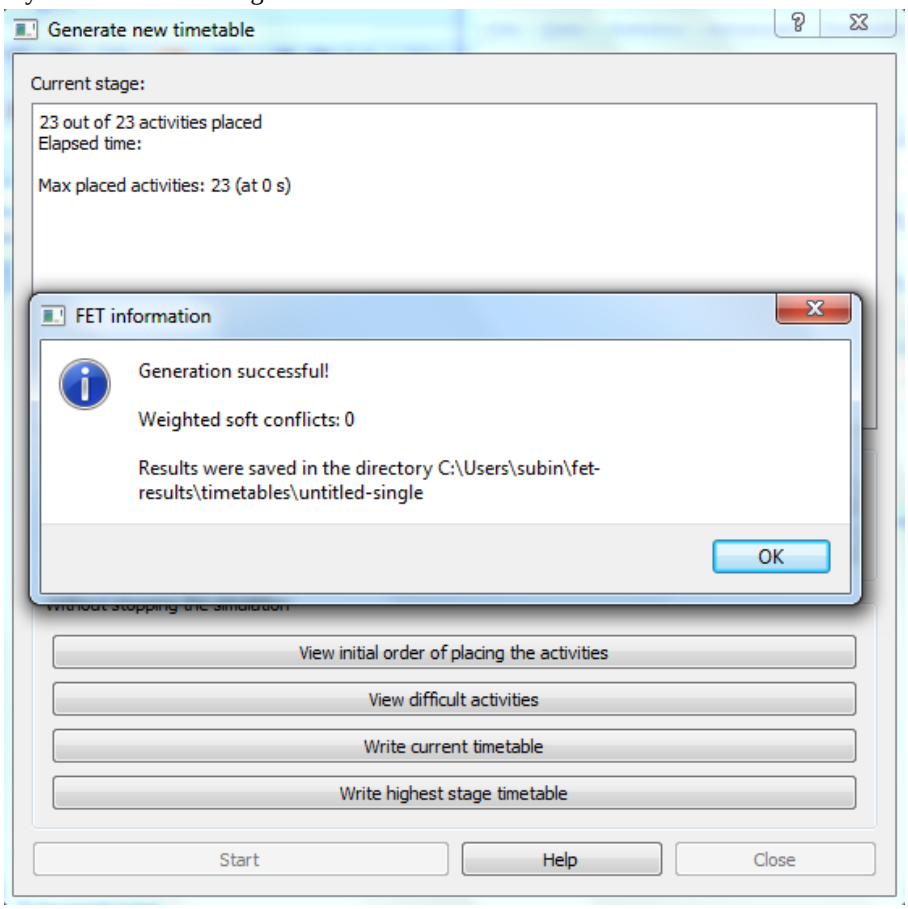

untitled.fet - FET
File Data Statistics Advanced
File Data
An activity has a preferred starting time
An activity has a set of preferred starting times
An activity has a set of preferred time slots
A set of activities has a set of preferred starting times
A set of activities has a set of preferred time slots
A set of subactivities has a set of preferred starting times
A set of subactivities has a set of preferred time slots
Min days between a set of activities
Max days between a set of activities
An activity ends students day
A set of activities end students day
A set of activities has same starting time (day+hour)
A set of activities has same starting day (any hours)
A set of activities has same starting hour (any days)

Click “add” button and set the starting time for class. For example, PE needs to be scheduled in the afternoon, choose PE subject and select start hour as 10:00 or 11:00 and then click “Add constraints” button. Because we only have four classes a day and this scheduling provides hour based, we need to consider 10, 11 am class as afternoon

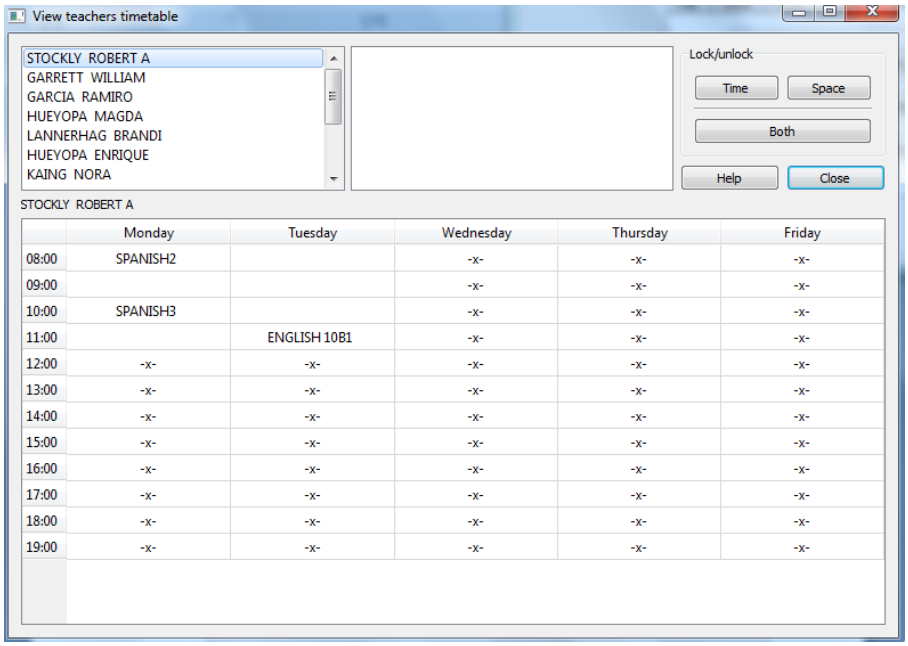
class.


Add activity preferred starting time
Filter
Teacher
Students set
Subject
ADV PE 1B1
Activity tag
Activity
13 - 1 - GARCIA RAMIRO - ADV PE 1B1 - no students
Weight percentage (recommended: 0.0%-100.0%)
100
Period
Day
Monday
Start hour
10:00
Permanently locked
Select this if you want this constraint not to be unlockable from the 'Timetable' menu (recommended). You can always remove this constraint from the constraints dialogs or uncheck "permanently locked" checkbox by editing this constraint
Add constraint
Close

To generate it, in the main page, click Timetable tab and “generate” button. Then this screen shows your if there is any conflicts and if the generation successful.



To check the scheduled result, click “Teacher” button and choose any teacher to take a look at the table.



	Monday	Tuesday	Wednesday	Thursday	Friday
08:00	SPANISH2		-x-	-x-	-x-
09:00			-x-	-x-	-x-
10:00	SPANISH3		-x-	-x-	-x-
11:00		ENGLISH 10B1	-x-	-x-	-x-
12:00	-x-	-x-	-x-	-x-	-x-
13:00	-x-	-x-	-x-	-x-	-x-
14:00	-x-	-x-	-x-	-x-	-x-
15:00	-x-	-x-	-x-	-x-	-x-
16:00	-x-	-x-	-x-	-x-	-x-
17:00	-x-	-x-	-x-	-x-	-x-
18:00	-x-	-x-	-x-	-x-	-x-
19:00	-x-	-x-	-x-	-x-	-x-

To see alternative schedule, click “Multiple” button and click “start”. It will generate alternative schedules in the folder “C:/Users/<user_name_folder>/fet-results>timetables/untitled-milti/1/untitled_teachers_days_horizontal.html”. Folders show how many alternatives have been created.

Institution name: Default institution

Comments: Default comments

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- STOCKLY ROBERT A
- GARRETT WILLIAM
- GARCIA RAMIRO
- HUEYOPA MAGDA
- LANNERHAG BRANDI
- HUEYOPA ENRIQUE
- KAING NORA
- MOLINA-CESAREO LILIAM
- TALWANI RAJEEV
- CLARK MITSUYO
- CARRILLO DENITS
- KENNEDY BETH B

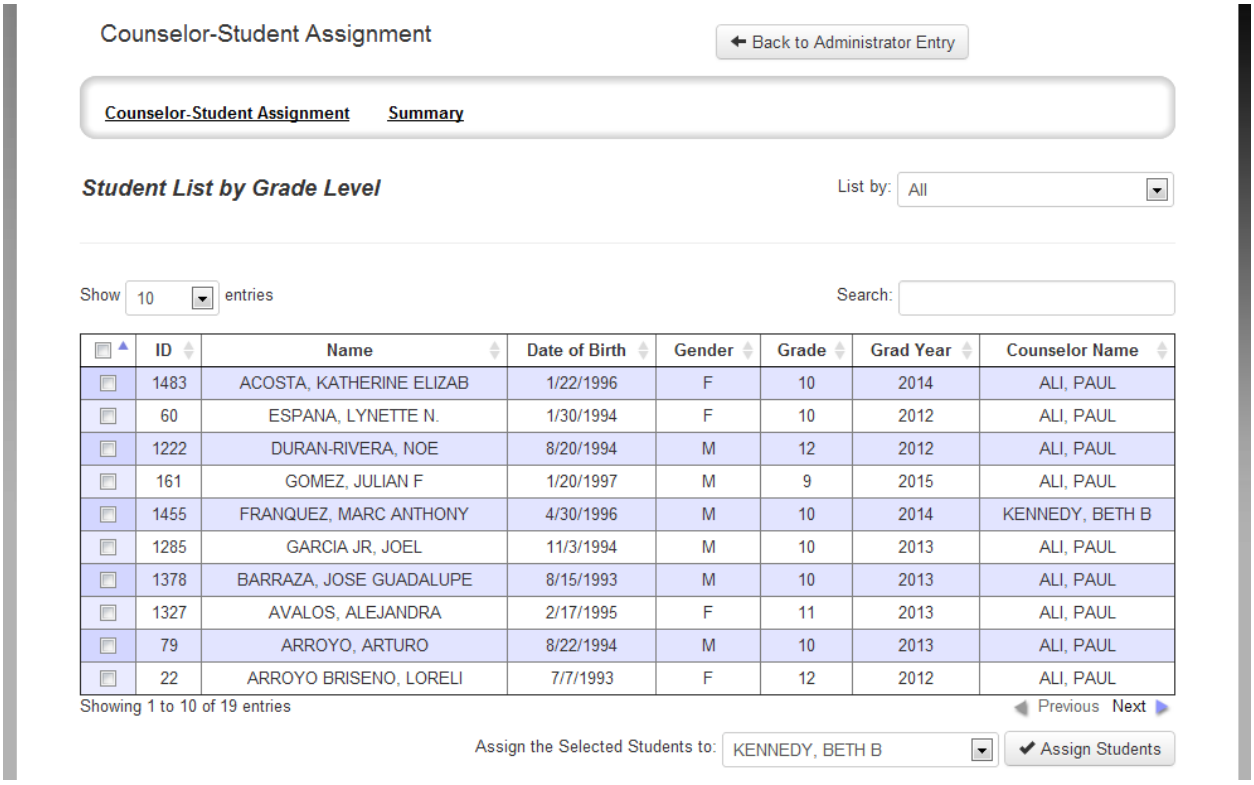
Default institution

	STOCKLY ROBERT A				
	Monday	Tuesday	Wednesday	Thursday	Friday
08:00	---	---	-x-	-x-	-x-
09:00	---	---	-x-	-x-	-x-
10:00	---	---	-x-	-x-	-x-

2.4.3 Counselor Management

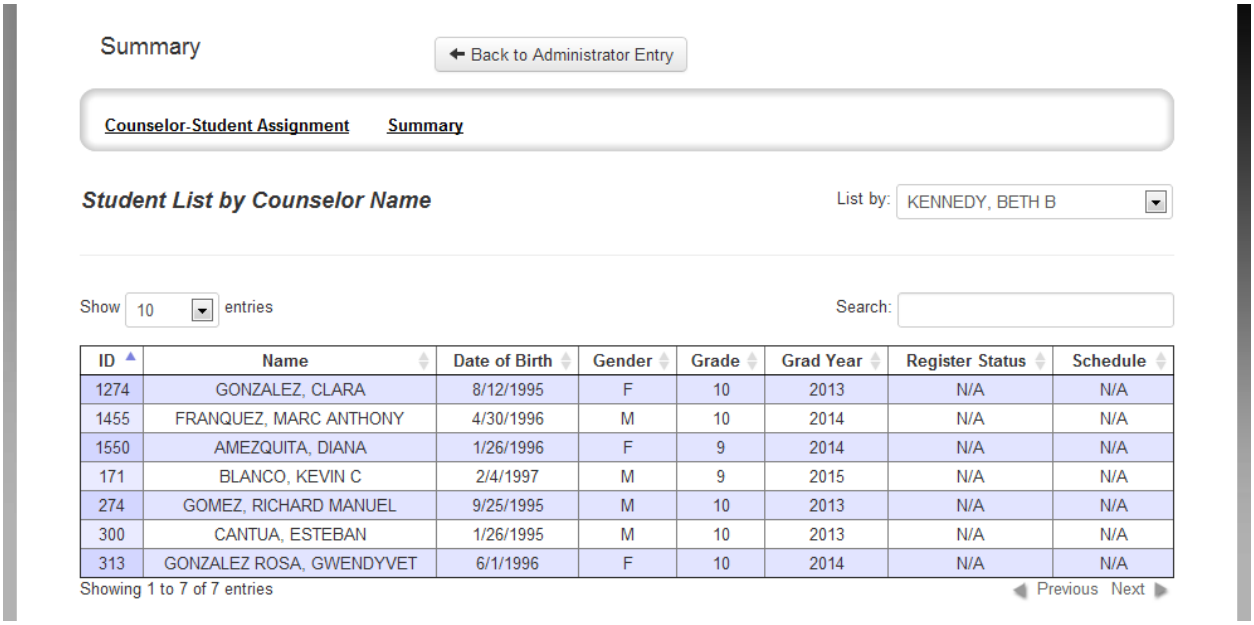
2.4.3.1 Counselor-Student Assignment

The user is presented with a table of students to be assigned to counselors. Standard search, sort, and paging functionalities are available on that table. The “List by” drop down box in the top right allows the user to further sort the students by grade. By checking a group of students and clicking the “Assign Students” button the user assigns the checked students to the counselor who’s name appears in the “Assign the selected students to:” drop box at the bottom of the page. Clicking the Back to Administrator Entry button takes the user back to the Admin Entry page.


Counselor-Student Assignment
Back to Administrator Entry
Counselor-Student Assignment
Summary
Student List by Grade Level
List by: All
Show 10 entries
Search:
ID
Name
Date of Birth
Gender
Grade
Grad Year
Counselor Name
1483 ACOSTA, KATHERINE ELIZAB 1/22/1996 F 10 2014 ALI, PAUL
60 ESPANA, LYNETTE N. 1/30/1994 F 10 2012 ALI, PAUL
1222 DURAN-RIVERA, NOE 8/20/1994 M 12 2012 ALI, PAUL
161 GOMEZ, JULIAN F 1/20/1997 M 9 2015 ALI, PAUL
1455 FRANQUEZ, MARC ANTHONY 4/30/1996 M 10 2014 KENNEDY, BETH B
1285 GARCIA JR, JOEL 11/3/1994 M 10 2013 ALI, PAUL
1378 BARRAZA, JOSE GUADALUPE 8/15/1993 M 10 2013 ALI, PAUL
1327 AVALOS, ALEJANDRA 2/17/1995 F 11 2013 ALI, PAUL
79 ARROYO, ARTURO 8/22/1994 M 10 2013 ALI, PAUL
22 ARROYO BRISENO, LORELI 7/7/1993 F 12 2012 ALI, PAUL
Showing 1 to 10 of 19 entries
Previous Next
Assign the Selected Students to: KENNEDY, BETH B
Assign Students

2.4.3.2 Summary

The user is presented with a table that summarizes the assignments of students to particular counselors and the current registration status for each student. Standard search, sort, and paging functionalities are available on the table. The “List by” drop down list in the top right allows the user to further sort the table by counselor assignment. By clicking the links under the “Register Status”, or “Schedule” columns the user may see the individual student views as if they were the assigned counselor. By Clicking the Back to Administrator Entry button takes the user back to the Admin Entry page.


Summary
Back to Administrator Entry
Counselor-Student Assignment
Summary
Student List by Counselor Name
List by: KENNEDY, BETH B
Show 10 entries
Search:
ID
Name
Date of Birth
Gender
Grade
Grad Year
Register Status
Schedule
1274 GONZALEZ, CLARA 8/12/1995 F 10 2013 N/A N/A
1455 FRANQUEZ, MARC ANTHONY 4/30/1996 M 10 2014 N/A N/A
1550 AMEZQUITA, DIANA 1/26/1996 F 9 2014 N/A N/A
171 BLANCO, KEVIN C 2/4/1997 M 9 2015 N/A N/A
274 GOMEZ, RICHARD MANUEL 9/25/1995 M 10 2013 N/A N/A
300 CANTUA, ESTEBAN 1/26/1995 M 10 2013 N/A N/A
313 GONZALEZ ROSA, GWENDYVET 6/1/1996 F 10 2014 N/A N/A
Showing 1 to 7 of 7 entries
Previous Next

2.4.4 Teacher Management

By selecting a Teacher name from the drop down listing in the top-right corner an administrator may view basic teacher information followed by their current weekly schedule. By clicking items in the schedule the administrator can view the students enrolled in the class taught by that teacher. Standard search, sort, and paging functionalities are available on that table. Clicking the Back to Administrator Entry button takes the user back to the Admin Entry page. Clicking the Back to Teacher Selection button takes the user back to the Teacher Management page.